

ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD REPEALING, RENUMBERING,
AMENDING, REPEALING AND RECREATING, AND CREATING RULES

.....
IN THE MATTER of repealing ss. NR 406.04(2)(e), .
NR 407.03(2)(d) and NR 407.03(2)(f); .
renumbering s. NR 406.04(2)(d), (f) and (g), .
NR 407.03(2)(c) and (e), NR 445.02(3), .
NR 445.04, and NR 445.05; amending ss. .
NR 406.04(2)(g), and NR 407.03(2)(f); .
repealing and recreating ss. NR 445.03; and .
creating s. NR 406.04(2)(d) and (f), .
NR 407.03(2)(c) and (e), NR 445.02(3), (4) .
and (5), and NR 445.04 and 445.05 of the .
Wisconsin Administrative Code, pertaining to .
the revision of emission limitations and permit .
exemption criteria for sources of hazardous .
air contaminants. .
.....

US EPA RECORDS CENTER REGION 5



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AM-9-87

Analysis Prepared by the Department of Natural Resources

The rules are promulgated under the authority of ss. 144.31(1)(a), (e), (f); 144.375(5)(b); 144.38, 144.391(6) and 227.11(2)(a), Stats., and interpret ss. 144.391(6) and 144.375(5)(b), Stats., and revise the State Implementation Plan (SIP) developed under s. 144.31(1)(f), Stats.

These rules revise the hazardous air contaminant criterion for determining whether new or modified sources and existing stationary sources of air pollution are exempted from requirements to obtain air pollution control permits under s. NR 406.04 and s. NR 407.03, Wis. Adm. Code, respectively. The revisions specify emission rates (in pounds per hour) for 361 hazardous substances and annual material use levels (in pounds per year) or trace contaminant concentrations in materials used (in parts per million) for an additional 133 hazardous substances. If a source emits or uses materials above the listed rates, levels or concentrations, the source will be required to obtain an air pollution control permit.

The rules also create three new definitions. The first defines the term "hazardous air contaminant" and identifies a list of 494 substances as hazardous air contaminants. The second definition establishes a level of control technology (Best Commercially Available Control Technology) for use in controlling sources of suspected carcinogenic substance emissions. The third definition establishes a level of control technology (Lowest Hazardous Emission Rate) for use in controlling sources of known human carcinogenic substance emissions.

Lastly, these revisions establish general emission limitations (expressed as ambient concentration impacts) for 361 essentially acute hazardous substances, and three levels of control technology application requirements for sources which emit or use another 133 substances which are either known or suspected carcinogens.

SECTION 1. NR 406.04(2)(e) is repealed.

SECTION 2. NR 406.04(2)(d), (f) and (g) are renumbered to NR 406.04(2)(e), (g) and (h) respectively; and NR 406.04(2)(g) as renumbered is amended to read:

NR 406.04(2)(g) The source will not emit any air contaminant not mentioned in par. (b),

(c), (d) or, (e) or (f), at a rate of more than 6 pounds per hour for each pollutant emitted, without considering pollution control equipment; and

SECTION 3. NR 406.04(2)(d) is created to read:

NR 406.04(2)(d) The source will not emit lead at a rate of more than 0.057 pounds per hour, without considering pollution control equipment.

SECTION 4. NR 406.04(2)(f) is created to read:

NR 406.04(2)(f)1. Except as provided in subds. 2 and 3:

a. The source's uncontrolled emissions at full capacity of any hazardous air contaminant listed in Table 1 of s. NR 445.03(1) is not greater than the emission rate listed in the table for the respective hazardous air contaminant at the respective stack height;

b. The source uses materials containing any substance listed in Table 2 of s. NR 445.03(2)(a) and the materials used do not contain more than 1,000 parts per million (0.1%) of any substance in Table 2; or the annual aggregate use of any substance listed in Table 2 does not exceed 25 pounds;

c. The source uses materials containing any substance listed in Table 3 of s. NR 445.03(2)(b), or Table 4 of s. NR 445.03(2)(c), and the materials used do not contain more than 1,000 parts per million (0.1%) of any substance in Table 3 or 4; or the annual aggregate use of any substance listed in Table 3 or 4 does not exceed 1,000 pounds; and

d. If the source includes combustion processes, the annual aggregate emissions of the following hazardous air contaminants from the combustion process do not exceed the respective amounts: for vinyl chloride, 2 pounds; for polychlorinated biphenyls, 2 pounds; for coke oven emissions, 300 pounds; for polycyclic organic matter, 300 pounds.

2. A source otherwise exempt under subd. 1 is not exempt if total facility emissions: a) Of hexavalent water insoluble chromium, nickel or cadmium exceed 10 pounds a year; or

b) Of any substance listed in Table 2 of s. NR 445.03(2)(a) exceed 100 pounds a year; or

c) Of any substance listed in Table 3 of s. NR 445.03(2)(b) or Table 4 of s. NR 445.03(2)(c) exceed 500 pounds a year.

3. A source combusting chlorinated solvents together with aromatic solvents, a municipal refuse incinerator or a hazardous waste incinerator may not be exempt from the requirement to obtain a permit under this paragraph.

4. For the purpose of determining emissions under this paragraph, sources may rely upon mass balance or other use or consumption methodologies for calculating emissions. However, the department may require that a stack test be conducted if the department determines that these estimations are incorrect. For purposes of this paragraph, a source is not required to estimate emissions of Table 1 substances from nonstack sources.

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SECTION 5. NR 407.03(2)(d) is repealed.

SECTION 6. NR 407.03(2)(c) and (e) are renumbered NR 407.03(2)(d) and (f) respectively; and NR 407.03(2)(f) as renumbered is amended to read:

NR 407.03(2)(f) The source will not emit any air contaminant not mentioned in par. (a),

(b), (c) or, (d) or (e) at a rate of more than 6 pounds per hour for each pollutant emitted, without considering pollution control equipment.

SECTION 7. NR 407.03(2)(c) is created to read:

NR 407.03(2)(c) The source will not emit lead at a rate of more than 0.057 pounds per hour, without considering pollution control equipment.

SECTION 8. NR 407.03(2)(e) is created to read:

NR 407.03(2)(e)1. Except as provided in subd. 2 or 3:

a. The source's uncontrolled emissions at full capacity of any hazardous air contaminant listed in Table 1 of s. NR 445.03(1) is not greater than the emission rate listed in the table for the respective hazardous air contaminant at the respective stack height;

b. The source uses materials containing any substance listed in Table 2 of s. NR 445.03(2)(a), and the materials used do not contain more than 1,000 parts per million (0.1%) of any substance in Table 2; or the annual aggregate use of any substance listed in Table 2 does not exceed 25 pounds;

c. The source uses materials containing any substance listed in Table 3 of s. NR 445.03(2)(b) or Table 4 of s. NR 445.03(2)(c) and the materials used do not contain more than 1,000 parts per million (0.1%) of any substance in Table 3 or 4; or the annual aggregate use of any substance listed in Table 3 or 4 does not exceed 1000 pounds; and

d. If the source includes combustion processes, the annual aggregate emissions of the following hazardous air contaminants from the combustion processes do not exceed the respective amounts: for vinyl chloride, 2 pounds; for polychlorinated biphenyls, 2 pounds; for coke oven emissions, 300 pounds; for polycyclic organic matter, 300 pounds.

2. A source otherwise exempt under subd. 1 is not exempt if total facility emissions:

- 1) Of hexavalent water insoluble chromium, nickel or cadmium exceed 10 pounds a year; or
- 2) Of any substance listed in Table 2 of s. NR 445.03(2)(a) exceed 100 pounds a year; or
- 3) Of any substance listed in Table 3 of s. NR 445.03(2)(b) or Table 4 of s. NR 445.03(2)(c) exceed 500 pounds a year.

3. A source combusting chlorinated solvents together with aromatic solvents, a municipal incinerator or a hazardous waste incinerator may not be exempt from the requirement to obtain a permit under this paragraph.

4. For the purpose of determining emissions under this paragraph, sources may rely upon mass balance or other use or consumption methodologies for calculating emissions. However, the department may require that a stack test be conducted if the department determines that these estimations are incorrect. For purposes of this paragraph, a source is not required to estimate emissions of Table 1 substances from nonstack sources.

SECTION 9. Table 1 following NR 407.03(2)(f) as renumbered is repealed.

SECTION 10. NR 445.02(3) is renumbered NR 445.02(6).

SECTION 11. NR 445.02(3), (4) and (5) are created to read:

NR 445.02(3) "Best commercially available control technology" means the maximum level of emission control available, taking into account cost, energy requirements and the relative benefits of differing control technologies. In determining the relative benefits of differing control technologies, consideration shall be given to intermedia environmental impacts, source size constraints, operational and maintenance costs and noise.

(4) "Hazardous air contaminant" means any air contaminant for which no ambient air quality standard is set in ch. NR 404 and which the department determines may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or may pose a significant threat to human health or the environment. The term hazardous air contaminant includes but is not limited to the substances listed in Tables 1 to 4 under ss. NR 445.03 and 445.04.

(5) "Lowest hazardous emission rate" means the maximum level of emission control attainable through the application of commercially available control techniques without taking into account the cost of the emission control.

SECTION 12. NR 445.03 is repealed and recreated to read:

NR 445.03 GENERAL EMISSION LIMITATIONS. (1) TABLE 1 SUBSTANCES. No person may cause, allow or permit emissions from a stationary source of a substance listed in Table 1 in such quantity or duration as to cause ambient concentrations which exceed the following limits:

(a) One percent (1%) of the Threshold Limit Value - Time Weighted Average established by the American Conference of Governmental Industrial Hygienists, incorporated by reference in ch. NR 484 for any consecutive 24-hour averaging period.

(b) One percent (1%) of the Threshold Limit Value - Ceiling established by the American Conference of Governmental Industrial Hygienists, incorporated by reference in ch. NR 484, for any 1-hour averaging period.

(2) TABLE 2 SUBSTANCES. (a) The owner or operator of any source which uses or any facility which emits any hazardous air contaminant listed in Table 2 in amounts greater than those listed in this subsection shall control emissions of those hazardous air contaminants to a level of control which achieves the lowest hazardous emissions rate.

1. Any source which uses materials containing any contaminant listed in Table 2, and the materials used contain more than 1,000 parts per million (0.1%) of any contaminant in Table 2; and the annual aggregate use of any contaminant listed in Table 2 exceeds 25 pounds.

2. Any combustion source with annual aggregate emissions which exceed 2 pounds of vinyl chloride, 2 pounds of polychlorinated byphenyls or 300 pounds of coke oven emissions.

3. Any facility whose total facility emissions exceed 10 pounds a year for nickel, 10 pounds a year for water insoluble hexavalent chromium, or 100 pounds a year for any other contaminant listed on Table 2.

(b) The department may grant a variance from the control provisions of par. (a) if the owner or operator of the source can demonstrate to the satisfaction of the department that compliance with the provisions of par. (a) would be economically infeasible when consideration is given to the source's impact on public health and the environment, and the source's impact upon the local economy. The department may not grant a variance under this paragraph to any source whose emissions of a contaminant listed in Table 2 exceed a concentration which would pose a cancer risk of more than one in one million to exposed populations as determined by the department of health and social services. The department shall publish a public notice of and hold a public hearing on any preliminary determination to approve a variance request under this paragraph.

(3) TABLE 3 SUBSTANCES. The owner or operator of any source which uses or any facility which emits any hazardous air contaminant listed in Table 3 in amounts greater than those listed in this subsection shall control emissions of those hazardous air contaminants to a level of control which is the best commercially available control technology.

(a) Any source which uses materials containing any contaminant listed in Table 3, and the materials used contain more than 1,000 parts per million (0.1%) of any contaminant in Table 3; and the annual aggregate use of any contaminant listed in Table 3 exceeds 1,000 pounds.

(b) Any combustion source with annual aggregate emissions which exceed 300 pounds of polycyclic organic matter.

(c) Any facility whose total facility emissions exceed 10 pounds a year for cadmium or 500 pounds a year for any other contaminant listed on Table 3.

(4) TABLE 4 SUBSTANCES. The owner or operator of any source which uses or any facility which emits any hazardous air contaminant listed in Table 4 in amounts greater than those listed in this subsection shall control emissions of those hazardous air contaminants to a level of control which is reasonably available control technology.

(a) Any source which uses materials containing any contaminant listed in Table 4, and the materials used contain more than 1,000 parts per million (0.1%) of any contaminant listed in Table 4, and the annual aggregate use of any contaminant listed in Table 4 exceeds 1,000 pounds.

(b) Any combustion source with annual aggregate emissions of any contaminant listed in Table 4 which exceeds 500 pounds.

(c) Any facility whose total facility emissions exceeds 500 pounds a year of any contaminant listed in Table 4.

(5) NESHAPS LIMITS. The emission limitations and control requirements of this section do not apply to the source of a hazardous air contaminant regulated under chs. NR 446 to 449 for the specific hazardous air contaminant regulated under those chapters.

Table 1
Hazardous Air Contaminants That Have Acceptable
Ambient Concentrations

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Acetaldehyde	75-07-0	6.246	26.23
Acetic acid	64-19-7	0.868	3.65
Acetic anhydride	108-24-7	0.422(c)	1.64(c)
Acetonitrile	75-05-8	2.429	10.20
Acrolein	107-02-8	0.0087	0.036
Acrylamide	79-06-1	0.010	0.042
Acrylic acid	79-10-7	1.041	4.37
Aldrin	309-00-2	0.0087	0.036
Allyl alcohol	107-18-6	0.174	0.73
Allyl chloride	107-5-1	0.104	0.43
Allyl propyl disulfide	2179-59-1	0.416	1.74
Aluminum	7429-90-5		
Pyro Powders		0.174	0.73
Welding fumes		0.174	0.73
Soluble salts		0.069	0.28
Alkyls		0.069	0.28
2-Aminopyridine	504-29-0	0.069	0.28
Amitrole	61-82-5	0.0069	0.028
Ammonia	7664-41-7	0.625	2.62

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Ammonium persulfate, as S ₂ O ₈	7727-54-1	0.174	0.73
Aniline	62-53-3	0.347	1.45
Anisidine	29191-52-4	0.017	0.071
Antimony & compounds, as Sb	7440-36-0	0.017	0.071
ANTU	86-88-4	0.010	0.042
Arsine	7784-42-1	0.0069	0.028
Asphalt (petroleum) fumes	8052-42-4	0.174	0.73
Atrazine	1912-24-9	0.174	0.73
Azinphos-methyl	86-50-0	0.0069	0.028
Barium	7440-39-3		
Soluble compounds, as Ba		0.017	0.071
Benomyl	17804-35-2	0.347	1.45
Benzoyl peroxide	94-36-0	0.174	0.73
Benzyl chloride	100-44-7	0.174	0.73
Biphenyl	92-52-4	0.052	0.21
Borates, tetra, sodium salts	1303-96-4		
Anhydrous		0.035	0.14
Decahydrate		0.174	0.73
Pentahydrate		0.035	0.14
Boron tribromide	10294-33-4	0.211(c)	0.81(c)

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Boron trifluoride	7637-07-2	0.063(c)	0.24(c)
Bromacil	314-40-9	0.347	1.45
Bromine	7726-95-6	0.024	0.10
Bromine pentafluoride	7789-30-2	0.024	0.10
2-Butoxyethanol	111-76-2	4.164	17.48
Butyl acrylate	141-32-2	1.909	8.01
n-Butyl alcohol	71-36-3	3.165(c)	12.28(c)
Butylamine	109-73-9	0.317(c)	1.22(c)
tert-Butyl chromate, as CrO ₃	1189-85-1	0.0021(c)	0.0081(c)
n-Butyl glycidyl ether (BGE)	2426-08-6	4.685	19.67
n-Butyl lactate	138-22-7	0.868	3.64
o-sec-Butylphenol	89-72-5	1.041	4.37
p-tert-Butyltoluene	98-51-1	2.082	8.74
Calcium cyanamide	156-62-7	0.017	0.071
Calcium hydroxide	1305-62-0	0.174	0.73
Calcium oxide	1305-78-8	0.069	0.28
Camphor (Synthetic)	76-22-2	0.416	1.74
Caprolactam	105-60-2		
Dust		0.035	0.14
Vapor		0.694	2.91
Captafol	2425-06-1	0.0035	0.014
Captan	133-06-2	0.174	0.73

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Carbaryl	63-25-2	0.174	0.73
Carbofuran	1563-66-2	0.0035	0.014
Carbon black	1333-86-4	0.121	0.50
Carbon disulfide	75-15-0	1.041	4.37
Carbon tetrabromide	558-13-4	0.049	0.20
Carbonyl fluoride	353-50-4	0.174	0.73
Catechol (Pyrocatechol)	120-80-9	0.694	2.91
Cesium hydroxide	21351-79-1	0.069	0.28
Chlordane	57-74-9	0.017	0.071
Chlorinated camphene	8001-35-2	0.017	0.071
Chlorinated diphenyl oxide	55720-99-5	0.017	0.071
Chlorinated naphthalenes			
tri	1321-65-9	0.174	0.73
tetra	1335-88-2	0.069	0.28
penta	1321-64-8	0.017	0.071
hexa	1335-87-1	0.0069	0.028
octa	2234-13-1	0.0035	0.014
Chlorine	7782-50-5	0.104	0.43
Chlorine dioxide	10049-04-4	0.010	0.042
Chlorine trifluoride	7790-91-2	0.0084(c)	0.032(c)
Chloroacetaldehyde	107-20-0	0.063(c)	0.24(c)
<i>a</i> -Chloroacetophenone	532-27-4		
(Phenacyl chloride)		0.010	0.042

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Chloroacetyl chloride	79-04-9	0.0069	0.028
Chlorobenzene (monochlorobenzene)	108-90-7	12.145	51.0
1-Chloro-1-nitropropane	600-25-9	0.347	1.45
Chloropicrin	76-06-2	0.024	0.10
B-Chloroprene	126-99-8	1.562	6.56
O-Chlorostyrene	1331-28-8	9.890	41.53
O-Chlorotoluene	95-49-8	8.675	36.43
Chlorpyrifos	2921-88-2	0.0069	0.028
Chromium	7440-47-3		
Metal		0.017	0.071
Chromium (II) compounds, as Cr		0.017	0.071
Chromium (III) compounds, as Cr		0.017	0.071
Chromium (VI) compounds, as Cr			
Water soluble		0.0017	0.0071
Chromyl chloride	14977-61-8	0.0052	0.021
Cobalt, as Co	7440-48-4		
Metal, dust & fume		0.0017	0.0071
Cobalt carbonyl, as Co	00000-00-0	0.0035	0.014
Cobalt hydrocarbyl, as Co	16842-03-8	0.0035	0.014

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Copper	7440-50-8		
Fume		0.0069	0.028
Dust & mists, as Cu		0.035	0.14
Cresol, all isomers	1319-77-3	0.763	3.20
Crotonaldehyde	123-73-9	0.208	0.87
Crufomate	299-86-5	0.174	0.73
Cumene	98-82-8	8.502	35.70
Cyanamide	420-04-2	0.069	0.28
Cyanides, (inorganics) as CN	151-50-8, 143-33-9	0.174	0.73
Cyanogen	460-19-5	0.694	2.91
Cyanogen chloride	506-77-4	0.013(c)	0.050(c)
Cyclohexanol	108-93-0	6.940	29.14
Cyclohexanone	108-94-1	3.470	14.57
Cyclohexylamine	108-91-8	1.388	5.82
Cyclopentadiene	542-92-7	6.940	29.14
Cyhexatin	13121-70-5	0.174	0.73
Demeton	8065-48-3	0.0035	0.014
Diacetone alcohol	123-42-2	8.328	34.97
Diazinon	333-41-5	0.0035	0.014
Diazomethane	334-88-3	0.014	0.058
Diborane	19287-45-7	0.0035	0.014
2-N-Dibutylaminoethanol	102-81-8	0.486	2.04
Dibutyl phosphate	107-66-4	0.174	0.73

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Dibutyl phthalate	84-74-2	0.174	0.73
O-Dichlorobenzene	95-50-1	6.330(c)	24.56(c)
1,3-Dichloro-5,5-dimethyl hydantoin	118-52-5	0.0069	0.028
1,1-Dichloroethane	75-34-3	28.107	118.04
1,2-Dichloroethylene	540-59-0	27.413	115.13
Dichloroethyl ether	111-44-4	1.041	4.37
1,1-Dichloro-1-nitroethane	594-72-9	0.347	1.45
Dichloropropene	542-75-6	0.174	0.73
2,2-Dichloropropionic acid	75-99-0	0.208	0.87
Dichlorvos	62-73-7	0.035	0.14
Dicrotophos	141-66-2	0.0087	0.036
Dicyclopentadiene	77-73-6	1.041	4.37
Dieleadrin	60-57-1	0.0087	0.036
Diethanolamine	111-42-2	0.521	2.18
Diethylamine	109-89-7	1.041	4.37
Diethylaminoethanol	100-37-8	1.735	7.28
Diethylene triamine	111-40-0	0.139	0.58
Diethyl phthalate	84-66-2	0.174	0.73
Diglycidyl ether (DGE)	2238-07-5	0.017	0.071
Diisobutyl ketone	108-83-8	5.205	21.86
Diisopropylamine	108-18-9	0.694	2.91

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Dimethyl acetamide	127-19-5	1.215	5.10
Dimethylamine	124-40-3	0.625	2.62
Dimethylaniline	121-69-7		
(N,N-Dimethylaniline)		0.868	3.64
Dimethylformamide	68-12-2	1.041	4.37
Dimethylphthalate	131-11-3	0.174	0.73
Dinitrobenzene	528-29-0, 99-65-0,		
	100-25-4	0.035	0.14
Dinitro-o-cresol	534-52-1	0.0069	0.028
Dinitrotoluene	121-14-2	0.052	0.21
Dioxathion	78-34-2	0.0069	0.028
Dipropyl ketone	123-19-3	8.155	34.25
Diquat	85-00-7	0.017	0.071
Disulfiram	97-77-8	0.069	0.28
Disulfoton	298-04-4	0.0035	0.014
Divinyl benzene	108-57-6	1.735	7.28
Endosulfan	115-29-7	0.0035	0.014
Endrin	72-20-8	0.0035	0.014
EPN	2104-64-5	0.017	0.071
Ethanolamine	141-43-5	0.278	1.16
Ethion	563-12-2	0.014	0.058
2-Ethoxyethanol	110-80-5	0.312	1.31

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2-Ethoxyethyl acetate	111-15-9	0.937	3.93
Ethyl acrylate	140-88-5	0.694	2.91
Ethylamine	78-04-7	0.625	2.62
Ethyl amyl ketone	541-85-5	4.511	18.94
Ethyl benzene	100-41-4	15.095	63.39
Ethyl butyl ketone	106-35-4	7.981	33.52
Ethylene chlorohydrin	107-07-3	0.063(c)	0.24(c)
Ethylenediamine	107-15-3	0.868	3.64
Ethylene dichloride	107-06-2	1.388	5.82
Ethylene glycol vapor	107-21-1	2.638(c)	10.23(c)
Ethylenimine	151-56-4	0.035	0.14
Ethyl formate	109-94-4	10.410	43.72
Ethyldene norbornene	16219-75-3	0.528(c)	2.04(c)
N-Ethylmorpholine	100-74-3	0.798	3.35
Ethyl silicate	78-10-4	2.950	12.39
Fensulfothion	115-90-2	0.0035	0.014
Fenthion	55-38-9	0.0069	0.028
Ferrovanadium dust	12604-58-9	0.035	0.14
Fluorides, (inorganics) as F		0.087	0.36
Fluorine	7782-41-4	0.069	0.28
Fonofos	944-22-9	0.0035	0.014
Formaldehyde	50-00-0	0.052	0.21

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Formamide	75-12-7	1.041	4.37
Furfural	98-01-1	0.278	1.16
Furfuryl alcohol	98-00-0	1.388	5.82
Germanium tetrahydride	7782-65-2	0.021	0.088
Glycidol	556-52-5	2.603	10.93
Heptachlor	76-44-8	0.017	0.071
Hexachlorocyclopentadiene	77-47-4	0.0035	0.014
Hexachloroethane	67-72-1	3.470	14.57
Hexane (n-Hexane)	100-54-3	6.246	26.23
sec-Hexyl acetate	108-84-9	10.410	43.72
Hexylene glycol	107-41-5	2.638(c)	10.23(c)
Hydrogenated terphenyls	61788-32-7	0.174	0.73
Hydrogen bromide	10035-10-6	0.211(c)	0.81(c)
Hydrogen chloride	7647-01-0	0.148(c)	0.57(c)
Hydrogen cyanide	74-90-8	0.211(c)	0.81(c)
Hydrogen fluoride	7664-39-3	0.053(c)	0.20(c)
Hydrogen peroxide	7722-84-1	0.052	0.21
Hydrogen sulfide	7783-06-4	0.486	2.04
Hydroquinone	123-31-9	0.069	0.28
2-Hydroxypropyl acrylate	999-61-1	0.104	0.43
Indium	7440-74-6	0.0035	0.014
Iodine	7553-56-2	0.021(c)	0.081(c)

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Iron oxide fume (Fe2O3), as Fe	1309-37-1	0.174	0.73
Iron pentacarbonyl, as Fe	13463-40-6	0.028	0.11
Iron salts, soluble, as Fe		0.035	0.14
Isobutyl alcohol	78-83-1	5.205	21.86
Isooctyl alcohol	26952-21-6	9.369	39.34
Isophorone	78-59-1	0.528(c)	2.04(c)
Isophorone diisocyanate	4098-71-9	0.0031	0.013
Isopropoxyethanol	109-59-1	3.644	15.30
Isopropylamine	75-31-0	0.416	1.74
N-isopropylaniline	768-52-5	0.347	1.45
Isopropyl glycidyl ether	4016-14-2	8.328	34.97
Ketene	463-51-4	0.031	0.13
Lithium hydride	7580-67-8	0.00087	0.0036
Maleic anhydride	108-31-6	0.035	0.14
Manganese, as Mn	7439-96-5		
Dust and compounds		0.106(c)	0.41(c)
Fume		0.035	0.14
Manganese cyclopentadienyl tricarbonyl, as Mn	12079-65-1	0.0035	0.014
Manganese tetroxide	0000-00-0	0.035	0.14

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Mercury	7439-97-6		
Alkyl compounds		0.00035	0.0014
All forms except alkyl			
Vapor		0.0017	0.0071
Aryl and inorganic compounds		0.0035	0.014
Mesityl oxide	141-79-7	2.082	8.74
Methacrylic acid	79-41-4	2.429	10.20
Methomyl	16752-77-5	0.087	0.36
2-Methoxyethanol	109-86-4	0.555	2.33
2-Methoxyethyl acetate	110-49-6	0.833	3.49
4-Methoxyphenol	150-76-5	0.174	0.73
Methyl acrylate	96-33-3	1.215	5.10
Methylacrylonitrile	126-98-7	0.104	0.43
Methylamine	74-89-5	0.416	1.74
Methyl n-amyl ketone	110-43-0	8.155	34.25
N-Methyl aniline	100-61-8	0.069	0.28
Methyl bromide	74-83-9	0.694	2.91
Methyl n-butyl ketone	591-78-6	0.694	2.91
Methyl chloride	74-87-3	3.644	15.30
Methyl 2-cyanoacrylate	137-05-3	0.278	1.16
Methylcyclohexanol	25639-42-3	8.155	34.25
o-Methylcyclohexanone	583-60-8	7.981	33.52

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Methylcyclopentadienyl manganese tricarbonyl, as Mn	12108-13-3	0.0069	0.028
Methylene bisphenyl isocyanate	101-68-8	0.0042(c)	0.016(c)
Methylene bis (4-cyclohexylisocyanate)	5124-30-1	0.0023(c)	0.0089(c)
Methylene chloride	75-09-2	12.145	51.00
Methyl demeton	8022-00-2	0.017	0.071
4,4-Methylene dianiline	107-77-9	0.028	0.11
Methyl ethyl ketone peroxide	1338-23-4	0.032(c)	0.12(c)
Methyl formate	107-31-3	8.675	36.43
Methyl isoamyl ketone	110-12-3	8.328	34.97
Methyl isobutyl carbinol	108-11-2	3.470	14.57
Methyl isobutyl ketone	108-10-1	7.114	29.87
Methyl isocyanate	624-83-9	0.0017	0.0071
Methyl mercaptan	74-93-1	0.035	0.14
Methyl methacrylate	80-62-6	14.227	59.75
Methyl parathion	298-00-0	0.0069	0.028
Methyl silicate	681-84-5	0.208	0.87
a-Methyl styrene	98-83-9	8.328	34.97
Mevinphos	7786-34-7	0.0035	0.014
Molybdenum, as Mo	7439-98-7		
Soluble compounds		0.174	0.73

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Monocrotophos	6923-22-4	0.0087	0.036
Morpholine	110-91-8	2.429	10.20
Naled	300-76-5	0.104	0.43
Naphthalene	91-20-3	1.735	7.28
Nitric acid	7697-37-2	0.174	0.73
P-Nitroaniline	100-01-6	0.104	0.43
Nitrobenzene	98-95-3	0.174	0.73
P-Nitrochlorobenzene	100-00-5	0.104	0.43
Nitroethane	79-24-3	10.757	45.17
Nitrogen trifluoride	7783-54-2	1.041	4.37
Nitromethane	75-52-5	8.675	36.43
1-Nitropropane	108-03-2	3.123	13.11
Nitrotoluene	99-08-1	0.382	1.60
Oxalic acid	144-62-7	0.035	0.14
Oxygen difluoride	7783-41-7	0.0021(c)	0.0081(c)
Paraffin wax fume	8002-74-2	0.069	0.28
Paraquat	1910-42-5		
Respirable sizes		0.0035	0.014
Parathion	56-38-2	0.0035	0.014
Pentaborane	19624-22-7	0.00035	0.0014
Pentachlorophenol	87-86-5	0.017	0.071
Perchloroethylene	127-18-4	11.625	48.82
Perchloromethyl mercaptan	594-42-3	0.028	0.11

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Perchloryl fluoride	7616-94-6	0.486	2.04
Persulfates, alkali metal		0.174	0.73
Phenol	108-95-2	0.659	2.76
Phenothiazine	92-84-2	0.174	0.73
Phenylene diamine	106-50-3	0.0035	0.014
Phenyl ether vapor	101-84-8	0.243	1.02
Phenyl glycidyl ether (PGE)	122-60-1	0.208	0.87
Phenyl mercaptan	108-98-5	0.069	0.28
Phorate	298-02-2	0.0017	0.0071
Phosgene	75-44-5	0.014	0.058
Phosphine	7803-51-2	0.014	0.058
Phosphoric acid	7664-38-2	0.035	0.14
Phosphorus (yellow)	7723-14-0	0.0035	0.014
Phosphorus oxychloride	10025-87-3	0.021	0.088
Phosphorus pentachloride	10026-13-8	0.035	0.14
Phosphorus pentasulfide	1314-80-3	0.035	0.14
Phosphorus trichloride	7719-12-2	0.052	0.21
Phthalic anhydride	85-44-9	0.208	0.87
m-Phthalodinitrile	626-17-5	0.174	0.73
Pindone	83-26-1	0.0035	0.014
Piperazine dihydrochloride	142-64-3	0.174	0.73

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Platinum	7440-06-4		
Metal		0.035	0.14
Soluble salts, as Pt		0.000069	0.00028
Potassium hydroxide	1310-58-3	0.042(c)	0.16(c)
Potassium persulfate, as S ₂ O ₈	7727-21-1	0.174	0.73
Propargyl alcohol	107-19-7	0.069	0.28
Propionic acid	79-09-4	1.041	4.37
Propoxur	114-26-1	0.017	0.071
n-Propyl nitrate	627-13-4	3.644	15.30
Propylene dichloride	78-87-5	12.145	51.00
Propylene oxide	75-56-9	1.735	7.28
Pyrethrum	8003-34-7	0.174	0.73
Pyridine	110-86-1	0.521	2.18
Quinone	106-51-4	0.014	0.058
Resorcinol	108-46-3	1.562	6.56
Rhodium	7440-16-6		
Metal		0.035	0.14
Soluble compounds, as Rh		0.00035	0.0014
Rosin core solder pyrolysis products, as formaldehyde		0.0035	0.014
Rotenone (commercial)	83-79-4	0.174	0.73

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Selenium compounds	7782-49-2	0.0069	0.028
Silicon tetrahydride (Silane)	7803-62-5	0.243	1.02
Sodium bisulfite	7631-90-5	0.174	0.73
Sodium fluoroacetate	62-74-8	0.0017	0.0071
Sodium hydroxide	1310-73-2	0.042(c)	0.16(c)
Sodium metabisulfite	7681-57-4	0.174	0.73
Sodium persulfate, as S ₂ O ₈	7775-27-1	0.174	0.73
Stibine	7803-52-3	0.017	0.071
Stoddard solvent (mineral spirits)	8052-41-3	18.218	76.51
Strychnine	57-24-9	0.0052	0.021
Styrene, monomer	100-42-5	7.461	31.33
Sulfotep	3689-24-5	0.0069	0.028
Sulfuric acid	7664-93-9	0.035	0.14
Sulfur monochloride	10025-67-9	0.127(c)	0.49(c)
Sulfur pentafluoride	5714-22-7	0.0021(c)	0.0081(c)
Sulfur tetrafluoride	7783-60-0	0.0084(c)	0.032(c)
Sulfuryl fluoride	2699-79-8	0.694	2.91
Tellurium and compounds, as Te	13494-80-9	0.0035	0.014
TEPP	107-49-3	0.0017	0.0071
Terphenyls	26140-60-3	0.106(c)	0.41(c)
1,1,2,2-Tetrachloroethane	79-34-5	0.243	1.02

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Tetrahydrofuran	109-99-9	20.473	85.98
Tetramethyl succinonitrile	3333-52-6	0.104	0.43
Tetrasodium pyrophosphate	7722-88-5	0.174	0.73
Thallium	7440-28-0		
Soluble compounds, as TI		0.0035	0.014
Thioglycolic acid	68-11-1	0.174	0.73
Thionyl chloride	7719-09-7	0.106(c)	0.41(c)
Thiram	137-26-8	0.174	0.73
Tin	7440-31-5		
Metal		0.069	0.28
Oxide & inorganic compounds, except SnO ₄ , as Sn		0.069	0.28
Organic compounds, as Sn		0.0035	0.014
Toluene (toluol)	108-88-3	13.013	54.65
Toluene-2,4-diisocyanate (TDI)	584-84-9	0.0014	0.0058
m-Toluidine	108-44-1	0.312	1.31
Tributyl phosphate	126-73-8	0.087	0.36
Trichloroacetic acid	76-03-9	0.174	0.73
1,2,4-Trichlorobenzene	120-82-1	0.844(c)	3.27(c)
1,1,2-Trichloroethane	79-00-5	1.562	6.56

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Trichloroethylene	79-01-6	9.369	39.34
1,2,3-Trichloropropane	96-18-4	10.410	43.72
Triethylamine	121-44-8	1.388	5.82
Trimellitic anhydride	552-30-7	0.0014	0.0058
Trimethylamine	75-50-3	0.833	3.49
Trimethyl benzene	2551-13-7	4.338	18.21
Trimethyl phosphite	121-45-9	0.347	1.45
Triorthocresyl phosphate	78-30-8	0.0035	0.014
Triphenyl phosphate	115-86-6	0.104	0.43
Tungsten - as W	7440-33-7		
Insoluble compounds		0.174	0.73
Soluble compounds		0.035	0.14
Uranium (natural)	7440-61-1		
Soluble & Insoluble, as U		0.0069	0.028
Valeraldehyde	110-62-3	6.073	25.50
Vanadium, as V205	1314-62-1		
Respirable dust and fume		0.0017	0.0071
Vinyl acetate	108-05-4	1.041	4.37
Vinylidene chloride	75-35-4	0.694	2.91
Vinyl toluene	25013-15-4	8.328	34.97
Warfarin	81-81-2	0.0035	0.014

<u>Contaminant</u>	<u>CAS Number*</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points less than 25 feet in height**</u>	<u>Emission Rate in Pounds/Hour for sources w/emission points at or greater than 25 feet in height**</u>
Xylene	1330-20-7	15.095	63.39
m-Xylene a, a'-diamine	1477-55-0	0.0021(c)	0.0081(c)
Xyldidine	1300-73-8	0.347	1.45
Zinc chloride fume	7646-86-7	0.035	0.14
Zinc oxide	1314-13-2		
Fume		0.174	0.73
Zirconium compounds, as Zr	7440-67-2	0.174	0.73

* The Chemical Abstracts Registry (CAS) number is a unique number assigned to chemicals by the American Chemical Society CAS Registry System. The CAS numbers are independent of nomenclature and have no chemical significance. They are assigned as each new chemical substance enters the CAS Registry System.

** The notation (c) indicates those contaminants with ceiling limits which are emission rates averaged over a one-hour period. Those contaminants without such a notation are emission rates per hour averaged over a twenty-four hour period.

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10/15/86

Hazardous Air Contaminants Without an Acceptable Ambient
Concentration Requiring Application of
Lowest Hazardous Emission Rate Controls

<u>Contaminant</u>	<u>CAS Number</u>
Acrylonitrile	107-13-1
Aflatoxins	1402-68-2
4-Aminobiphenyl	92-67-1
Arsenic and inorganic compounds	7440-38-2
Asbestos	1332-21-4
Auramine (technical grade)	2465-27-2
Benzene	71-43-2
Benzidine	92-87-5
Beryllium and beryllium compounds	7440-41-7
Bis (chloromethyl) ether (BCME) and technical grade chloromethyl methyl ether (CMME)	542-88-1
Chromium (VI), water insoluble compounds	107-30-2
Coke oven emissions	7440-47-3
Diethyl sulphate	64-67-5
Dimethyl sulfate	77-78-1
2-Naphthylamine	91-59-8
Nickel and inorganic nickel compounds (including nickel carbonyl)	7440-02-0
Polybrominated biphenyls (PBB)	36355-01-8
Polychlorinated biphenyls (PCB)	1336-36-3
Thorium dioxide	1314-20-1
2,3,7,8 - Tetrachloro-dibenzo-p-dioxin	1746-01-6
O-Toluidine	95-53-4

<u>Contaminant</u>	<u>CAS Number</u>
Vinyl bromide	593-60-2
Vinyl chloride	75-01-4
Manufacture of:	
Azathioprine	446-86-6
N,N-Bis (2-chloroethyl) 2-naphthylamine (chloronaphazine)	49-40-31
1,4-Butanediol dimethanesulphonate (myleran)	55-98-1
Chlorambucil	305-03-3
Cyclophosphamide	50-18-0
Diethylstilbestrol (DES)	56-53-1
Melphalan	148-82-3
Mustard Gas	505-60-2
Nitrogen Mustards	51-75-2
Oxymetholone	434-07-1
Phenacetin	62-44-2
Procarbazine and procarbazine hydrochloride	366-70-1
Treosulphan	299-75-2

7905Q
7/14/86

Contaminants without an Acceptable Ambient
Concentration Requiring Application of Best
Commercially Available Control Technology

<u>Contaminant</u>	<u>CAS Number</u>
2-Aminoanthraquinone	117-79-3
o-Anisidine and o-anisidine hydrochloride	29191-52-4
1,3-Butadiene	106-99-0
Cadmium and cadmium compounds	7440-43-9
Carbon tetrachloride	56-23-5
Chloroform	67-66-3
p-Cresidine	120-71-8
2, 4-Diaminoanisole sulfate	39156-41-7
2, 4-Diaminotoluene	95-80-7
Di (2-ethylhexyl) phthalate	117-82-7
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8
1,2-Dibromoethane (EDB)	106-93-4
p-Dichlorobenzene	106-46-7
3,3-Dichlorobenzidine	91-94-1
1,2-Dichloroethane (EDC)	75-34-3
1,1-Dimethylhydrazine	57-14-7
3,3-Dimethoxybenzidine (ortho-dianisidine)	119-90-4
4-Dimethylaminoazobenzene	60-11-7
3,3-Dimethylbenzidine	119-93-7
Dimethylcarbamoyl chloride	79-44-7
1,4-Dioxane	123-91-1
Epichlorohydrin	106-89-8
Ethylene oxide	75-21-8

<u>Contaminant</u>	<u>CAS Number</u>
Ethylene thiourea	96-45-7
Gasoline	8006-61-9
Hexachlorobenzene (HCB)	118-74-1
Hexachlorobutadiene	87-68-3
Hexamethyl phosphoramide	680-31-9
Hydrazine and hydrazine sulfate	302-01-2
Hydrazobenzene	122-66-7
Lindane and other hexachlorocyclohexane isomers	58-89-9
4,4'-Methylenebis (2-chloroaniline) (MDCA)	101-14-4
4,4'-Methylenebis (n,n dimethyl) benzeneamine	101-14-4
Methyl hydrazine	60-34-4
Methyl iodide	74-88-4
4-Nitrodiphenyl	92-93-3
2-Nitropropane	76-46-9
N-phenyl-beta-naphthylamine	135-88-6
Phenylhydrazine	100-63-0
Propane sultone	1120-71-4
8-Propiolactone	57-57-8
Propylenimine	75-55-8
Thiourea	62-56-6
Urethane (ethyl carbamate)	51-79-6
Vinyl cyclohexane dioxide	106-87-6
Polycyclic Organic Matter	
(2-acetylaminofluorene	53-96-3
benz (a) anthracene	56-55-3
benzo (a) pyrene	50-32-8
benzo (b) fluoranthene	205-99-2

<u>Contaminant</u>	<u>CAS Number</u>
chrysene	218-01-9
dibenz (a,h) acridine	226-36-8
dibenz (a,j) acridine	224-42-0
dibenz (a,h) anthracene	53-70-3
7H-dibenzo (c,g) carbazole	194-59-2
dibenzo (a,h) pyrene	189-64-0
Dibenzo (a,i) pyrene	189-55-9
ideno (1,2,3-cd) pyrene)	193-39-5
Manufacture of Pharmaceuticals	
Actinomycin D	50-76-0
Adriamycin	23214-92-8
Chloramphenicol	56-75-7
Cisplatin	15663 27 1
Dacarbazine	4342-03-4
Dienoestrol	84-17-3
Ethinylestradiol	57-63-6
Iron dextran complex	9004-66-4
Mestranol	72-33-3
Metronidazole	443-48-1
Norethisterone	68-22-4
Oestradiol	50-28-2
Oestrogens and progestins	
Oestrone	53-16-7
Phenazopyridine and phenazopyridine hydrochloride	136-40-3
Phenytoin and sodium salt of phenytoin	57-41-0
Propylthiouracil	51-52-5
Reserpine	50-55-5

<u>Contaminant</u>	<u>CAS Number</u>
Selenium sulfide	7488-56-4
Streptozotocin	18883-66-4
tris (1-azirindinyl) phosphine sulfide	52-24-4
Uracil mustard	66-75-1

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Table 4

Hazardous Air Contaminants Without an Acceptable Ambient Concentration
Requiring Application of Reasonably Available Control Technology

<u>Contaminant</u>	<u>CAS Number</u>
Nitrosoamines	
Bischloroethyl nitrosourea	154-93-8
1-(2-chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)	13010-47-4
5-nitro-o-ansidine	99-59-2
N-Nitroso-N-ethylurea	759-73-9
N-Nitroso-N-Methylurea	684-93-5
N-Nitrosodi-n-butylamine	924-16-3
N-Nitrosodiethanolamine	1116-54-7
N-Nitrosodiethylamine	55-18-5
N-Nitrosodimethylamine	62-75-9
p-Nitrosodiphenylamine	156-10-5
N-Nitrosodi-n-propylamine	621-64-7
N-Nitrosomethylvinylamine	4549-40-0
N-Nitrosomorpholine	59-89-2
N-Nitrosonornicotine	53759-22-1
N-Nitrosopiperidine	100-75-4
N-Nitrosopyrrolidine	930-55-2
N-Nitrososarcosine	13256-22-9

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7/14/86

SECTION 13. NR 445.04 and 445.05 are renumbered NR 445.06 and 445.07, respectively.

SECTION 14. NR 445.04 and 445.05 are created to read:

NR 445.04 COMPLIANCE SCHEDULES. (1) COMPLIANCE SCHEDULES FOR NEW AND MODIFIED SOURCES. Any source which commences construction or modification on or after [the effective date of this rule] shall meet the emission limitations in s. NR 445.03 upon start-up unless the owner or operator of the source demonstrates, to the satisfaction of the department, that compliance upon start-up would be technologically infeasible. Such sources shall instead meet a department-specified compliance schedule which provides for interim emission limitations and for ultimate compliance with the emission limitations in s. NR 445.03. Ultimate compliance shall be as soon as practicable, but in no event later than the final compliance date the source would have been required to meet under sub. (2), if the source had been constructed or modified prior to [the effective date of this rule].

(2) COMPLIANCE SCHEDULES FOR EXISTING SOURCES. Any source which commenced construction or modification prior to [the effective date of this rule] shall comply with the emission limits in s. NR 445.03 according to the following schedules:

(a) Tables 2 and 3. For sources of hazardous air contaminants listed in Tables 2 and 3 of s. NR 445.03;

1. Submit plans for achieving compliance within 12 months of [the effective date of this rule];

2. If materials substitution is the method for achieving compliance, achieve final compliance no later than 12 months from the date the department approves the compliance plan.

3. If capital expenditures, for other than materials substitution, are necessary for achieving compliance, achieve final compliance no later than 24 months from the date the department approves the compliance plan.

(b) Tables 1 and 4. For sources of hazardous air contaminants listed in Tables 1 and 4 of s. NR 445.03:

1. Submit plans for achieving compliance within 6 months of the date of issuance of the source's mandatory operating permit.

2. If materials substitution is the method for achieving compliance, achieve final compliance no later than 12 months from the date the department approves the compliance plan.

3. If capital expenditures, for other than materials substitution, are necessary for achieving compliance, achieve final compliance no later than 24 months from the date the department approves the compliance plan.

(c) Final compliance plans. If the department finds any compliance plan submitted under this subsection to be unsatisfactory, it may require that the plan be resubmitted with appropriate revisions or it may revise the compliance plan.

NR 445.05 GASOLINE MARKETING. On or before [42 months from the effective date of this rule], the department shall promulgate rules requiring gasoline marketing sources to control emissions of hazardous air contaminants through the installation and operation of Stage 2 vapor recovery equipment. On or before [36 months from the date of this rule], if the U.S. EPA has required

the installation and operation of Stage 2 vapor recovery equipment or on-board vapor recovery systems in Wisconsin, the department shall promulgate rules to repeal this section.

SECTION 15. CROSS REFERENCE CHANGES In the following table in sections listed in column A change the sections referenced in column B to the sections listed in column C:

CROSS REFERENCE TABLE

COLUMN A	COLUMN B	COLUMN C
NR 406.04(3)(b).	Sub (2)(b), (c), (d), (e), and (f).	Sub (2)(b), (c), (d), (e), (f), and (g).

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

The rule shall take effect as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Carroll D. Besadny, Secretary

(SEAL)
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